DOCUMENT RESUME

ED 353 971 IR 015 934

AUTHOR Jenks, Lynn, Comp.; And Others
TITLE Invitational Forum for the Development of Coordinated Statewide Leadership in Educational Technology (California, July 14, 1982).
INSTITUTION California School Boards Association, Sacramento.; California State Dept. of Education, Sacramento.; Far West Lab. for Educational Research and Development, San Francisco, Calif.
PUB DATE 82
NOTE 21p.
PUB TYPE Reports - Descriptive (141)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Change Strategies; Clearinghouses; Curriculum Development; Educational Innovation; *Educational Planning; *Educational Technology; Elementary Secondary Education; Financial Support; Group Discussion; Long Range Planning; *Needs Assessment; Program Implementation; Staff Development; State Programs; Technological Literacy
IDENTIFIERS California

ABSTRACT

Reports on a forum sponsored by the California State Department of Education in cooperation with the California School Boards Association and the Far West Laboratory for Education Research and Development, which was held to identify the most critical needs for educational technology in the state and to discuss possible strategies for meeting these needs. The final consolidated list of six critical educational technology needs--which were determined through small group brainstorming sessions and voting by all participants--is presented: (1) state and local planning; (2) public awareness of technology literacy issues; (3) adequate funding for planning and implementation of educational technology; (4) a new view of curriculum development and instruction incorporating technology; (5) staff development; and (6) formation of an educational technology clearinghouse. Proposed strategies to meet these needs are discussed; and participants' comments on the process and outcome of the forum, as well as highlights of remarks by the two speakers, are summarized. Appendices include a list of the names, organizations, and addresses of all participants; the agenda for the forum; and an outline of the needs identified by each of the small groups. (ALF)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

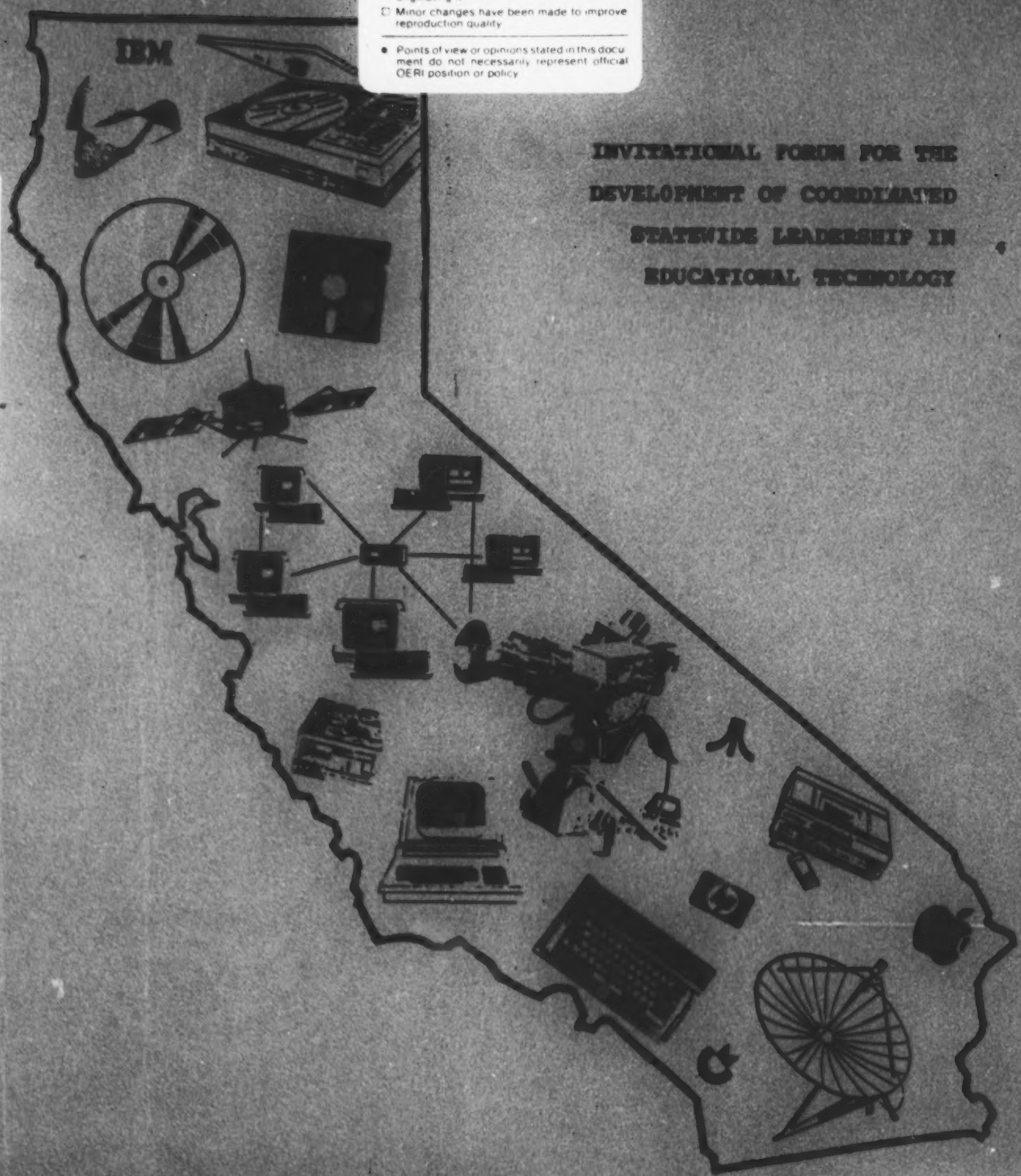
U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED353971



INVITATIONAL FORUM FOR THE DEVELOPMENT OF COORDINATED STATEWIDE LEADERSHIP IN EDUCATIONAL TECHNOLOGY

CALIFORNIA SCHOOL BOARDS ASSOCIATION
CALIFORNIA STATE DEPARTMENT OF EDUCATION
FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

T. Ross

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

IR015934

BEST COPY AVAILABLE

Planning Committee

California School Boards Association	Nancy Baumann Forrest Williams
California State Department of Education	Mary Reed Carroll Bravo Donna Bolen Stu Greenfeld
Far West Laboratory	Matilda Butler Lewis Miller Lynn Jenks

****

Acknowledgments

This book was compiled by Lynn Jenks, Debra Lieberman, and Jean Sims. Cover and word processing by Sharon Taylor

BEST COPY AVAILABLE

TABLE OF CONTENTS

INTRODUCTION. 1

IDENTIFIED NEEDS: SIX MOST CRITICAL EDUCATIONAL TECHNOLOGY NEEDS IN CALIFORNIA 3

PROPOSED STRATEGIES 4

State and Local Planning 4

Public Awareness 4

Adequate Funding 5

New Views of Curriculum Development 5

Staff Development 7

Educational Technology Clearinghouse 7

CLOSING SESSION 8

APPENDIX A 10

APPENDIX B 13

APPENDIX C 16

INVITATIONAL FORUM FOR THE DEVELOPMENT OF COORDINATED STATEWIDE LEADERSHIP IN EDUCATIONAL TECHNOLOGY

INTRODUCTION

The technological revolution is having a profound effect on schools and society. For example, the rapid infusion of technology into education has posed many problems for educational planners and decision-makers. Educators across the country have begun to respond in a variety of ways. In California, educational leaders determined that a coordinated statewide effort should be initiated in order to provide a framework or structure within which educators can function more effectively. As a result, the California State Department of Education, in cooperation with the California School Boards Association and the Far West Laboratory for Educational Research and Development, sponsored an invitational forum to identify the most critical needs for educational technology in the state and to discuss possible strategies for meeting the needs.

Representatives from major educational organizations, agencies, and institutions throughout the state were invited to attend a one-day meeting. In all, 37 persons representing 18 organizations and agencies attended the meeting. Many of the participants were representatives of larger organizations who could provide liaison with additional groups (see Appendix A for a list of participants).

Following introductory statements by Wilson Riles, Superintendent of Public Instruction and Emanuel Scrofani, Manager, Office of Staff Development, the assembled group began work on the day's agenda (see Appendix B for the Agenda and highlights of remarks by Drs. Riles and Scrofani). Working in both large and small

groups the Forum participants selected a set of critical technology needs and possible strategies or approaches to meet the needs. The next section describes the primary outcomes of the group's deliberations.

To arrive at a basic list of critical needs, Forum participants first divided into four small groups, each consisting of nine members. Group leaders from the forum's sponsoring agencies—the California State Department of Education, the California School Boards Association, and Far West Laboratory— facilitated group discussion and recorded comments. Each group was asked to list all the educational technology needs they could identify in a brainstorming process, and all ideas were recorded for further discussion and consideration. These lists of needs are in Appendix B: Small Group Brainstorming to Identify Educational Technology Needs. Each small group then selected, by vote, the five top needs from their lists, and these appear in Appendix C: Small Groups' Lists of Five Critical Educational Technology Needs.

After the small group meetings, all Forum participants met together to hear reports from the four small groups and to examine the lists of top needs each had submitted. The four lists of needs were consolidated to avoid repetition, and a vote was taken to select high priority needs. The final list of critical educational technology needs appears on the following page.

IDENTIFIED NEEDS:

SIX CRITICAL EDUCATIONAL TECHNOLOGY NEEDS IN CALIFORNIA

A. State and Local Planning: Coordination and Cooperation Across the State
   - Budgets
   - Facilities
   - Research
   - Instruction

B. Public Awareness of Technology Literacy Issues
   - Includes teachers, students, and parents
   - Requires standards and definitions of technology literacy

C. Adequate Funding for Planning and Implementation of Educational Technology

D. New View of Curriculum Development and Instruction Incorporating Technology
   - Integrating courseware into curriculum planning
   - Developing basic academic skills through use of technology
   - Coordinating across academic disciplines

E. Staff Development
   - Pre- and in-service training
   - Elementary, secondary, and higher education levels

F. Educational Technology Clearinghouse
   - Information
   - Research and courseware development
   - Courseware evaluation

PROPOSED STRATEGIES

After the six critical educational technology needs were identified, the entire group discussed possible strategies for meeting each need. This was a preliminary discussion intended to help participants share ideas and identify resources. Its purpose did not include setting policies, drawing conclusions, or asking organizations to make specific commitments. Following are the suggestions the group discussed.

State and Local Planning

Many participants agreed that the first step in state and local planning efforts should be to identify existing resources throughout the state. A statewide survey was suggested, perhaps facilitated through the 15 regional TEC (Teacher Education/Computer) centers. In addition, the California State Department of Education already has plans to conduct a survey of school districts in order to ascertain the amount and kinds of educational technology currently in use. The Far West Laboratory electronic bulletin board was mentioned as a tool that all California educators may use for gathering and sharing information and for coordinating educational technology activities statewide.

Public Awareness of Technology Literacy Issues

To meet the second priority, educators can help the public to feel involved in as well as informed about developments in the field of technology. While many Californians have a general awareness about the current technology revolution, they should also have ample opportunity to participate in it, and schools can help to provide access. New trends and developments can be publicized through educational

organizations' existing information outlets and publications. Clear definitions are needed to help educators agree on their terms. Technology literacy, for example, might include the ability to use technological tools, to select technology and software appropriate to a task, and to evaluate the quality of software content.

Adequate Funding for Planning and Implementation of Educational Technology

To acquire and administer adequate funding, proposals with ideas for innovative educational technology projects might be submitted to state and local foundations. Industry can supply people and equipment, in addition to financial support. Tax breaks might be granted to companies that donate equipment to schools. A central, statewide foundation or organization might be formed to receive and distribute industry donations to California schools.

New View of Curriculum Development and Instruction Incorporating Technology

The fourth priority generated numerous suggestions from forum participants. Educators now need the skills and the opportunities to evaluate and select new, electronic courseware. While educators will serve as gatekeepers in the selection process, they should also participate in setting standards of quality for courseware producers to follow. Statewide policies and a set of minimum standards will help ensure that new courseware will meet established educational objectives. Existing exemplary courseware and educational technology projects can serve as models of excellence for future planning.

Educators should be made aware that educational technology can assist in all curriculum areas. They should be familiar with the resources available, and know how to incorporate hardware and software into their lesson plans. They should also know how to select educational technology that will help develop students' basic academic skills, such as reading, writing, and higher level thinking skills.

To develop stimulating educational courseware, research is needed. What works best, what can be taught, and what should be taught with educational technology? Educators should participate in answering these questions. They should be proactive in determining courseware quality and content at the developmental stage and not merely reactive, selecting and responding to materials once they have already been produced. A statewide committee can be designated to identify the questions which should be researched, set standards of quality for courseware production, and develop guidelines for evaluating existing materials.

Forum participants disagreed on the merits of courseware development at the local school level. Some felt it would be too demanding and time-consuming for teachers to create their own teaching materials. They suggested that teams of specialists at the state and regional levels should be designated to do this work. Other forum participants countered with examples of excellent local production, which is already being done by teachers and students. They pointed out the benefits of local courseware production. For teachers, video and computer program production allows them to tailor lessons to their students' particular needs and interests. For students, the process of courseware production offers unique educational benefits both in developing technology literacy skills and skills in the courseware content area.

Another strategy suggested for implementing the new view of curriculum development is the formation of interdisciplinary teams consisting of teachers, curriculum experts, researchers, and technology (e.g., film, video, computer) experts. With their combined expertise, they can develop lesson plans to teach media literacy, production, and computer programming, and integrate technology into the existing curriculum.

Staff Development

To train staff in educational technology, existing training resources can be tapped. New training topics and hands-on experiences can be made available to educators at the pre- and in-service levels, through existing institutions.

Educational Technology Clearinghouse

A clearinghouse was mentioned frequently as a means to meet the first five needs listed above. Some of the suggested functions that a clearinghouse could serve include cataloging and responding to requests for information; housing print and electronic teaching materials and hardware; facilitating cooperation and coordination between educational institutions, industry, and the general public; assisting with statewide planning; conducting research and evaluation in educational technology; developing new curricula; facilitating cross-disciplinary activities; assisting in the implementation of new staffing patterns in education; leading special workshops and training sessions; publishing news about developments in the educational technology field; and providing direct services to schools that are beginning to use new technology for administration and teaching. The clearinghouse would be a central resource for all educators, which would help them solve problems, implement new ideas, link up with others with similar interests throughout the state, share information, and learn about the latest developments in the educational technology field.

CLOSING SESSION

The final session was devoted to obtaining comments from the participants about the process and the outcomes of the day. Participants submitted written comments in response to three questions:

1. What is the most important outcome of this meeting?
2. What remains to be done?
3. Should meetings like this be continued?

These comments are summarized below.

1. WHAT IS THE MOST IMPORTANT OUTCOME OF THIS MEETING?

Thirteen out of 20 respondents mentioned information-sharing as an important outcome of the day's meeting.

- "Learning shared problems that will probably lead to collaboration."
- "Good sharing of ideas."
- "Sharing and coordination between groups who might not usually talk together."

Needs identification and the establishment of group consensus were also cited frequently.

- "Got some consensus on priorities."
- "I feel most of us are speaking/thinking the same message."
- "The feeling of statewide level of coordination, definition, and evaluation."

2. WHAT REMAINS TO BE DONE

Many participants felt that they needed to identify and choose specific

strategies to help them meet educational technology needs and then to implement those strategies.

- "Develop strategies to bring this technology to reality."
- "Specific tasks and implementation strategies are needed."

Some respondents mentioned specific ideas that had been discussed during the day, such as the value of ensuring that all students have equal access to technology, the importance of careful planning and networking, the potential benefits of industry-education cooperation, and the need to include independent schools in statewide decision-making.

3. SHOULD MEETINGS LIKE THIS BE CONTINUED?

All respondents felt it would be worthwhile to continue meeting to implement the ideas that emerged during this session.

- "The forum was great and should be continued."
- "Continue the forum. Focus on individual topics raised at the meeting."
- "Yes, forums should continue, but on very specific topics such as 'What should educational technology teach?'"
- "Would like to see follow-up and implementation of ideas developed here."

APPENDIX A

PARTICIPANTS AT THE INVITATIONAL FORUM ON EDUCATIONAL TECHNOLOGY July 14, 1982

NAME	ORGANIZATION
Wilson Riles	STATE SUPERINTENDENT OF PUBLIC INSTRUCTION STATE DEPARTMENT OF EDUCATION 721 Capitol Mall, Sacramento 95814
Mary Reed	STATE DEPARTMENT OF EDUCATION EDUCATIONAL TECHNOLOGY UNIT 721 Capitol Mall, Sacramento 95814
Carroll Bravo	STATE DEPARTMENT OF EDUCATION EDUCATIONAL TECHNOLOGY UNIT 721 Capitol Mall, Sacramento 95814
Donna Bolen	STATE DEPARTMENT OF EDUCATION EDUCATIONAL TECHNOLOGY UNIT 721 Capitol Mall, Sacramento 95814
Stu Greenfeld	STATE DEPARTMENT OF EDUCATION CURRICULUM SERVICES 721 Capitol Mall, Sacramento 95814
Emanuel J. Scrofani	STATE DEPARTMENT OF EDUCATION OFFICE OF STAFF DEVELOPMENT 721 Capitol Mall, Sacramento 95814
J. William May	STATE DEPARTMENT OF EDUCATION OFFICE OF CURRICULUM SERVICES 721 Capitol Mall, Sacramento 95814
Gary Thompson	STATE DEPARTMENT OF EDUCATION VOCATIONAL EDUCATION UNIT 721 Capitol Mall, Sacramento 95814
Carol Burton	STATE DEPARTMENT OF EDUCATION DEPUTY SUPERINTENDENT'S OFFICE 721 Capitol Mall, Sacramento 95814
Matilda Butler	FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT 1855 Folsom Street, San Francisco 94103
Lew Miller	FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT 1855 Folsom Street, San Francisco 94103

Lynn Jenks	FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT 1855 Folsom Street, San Francisco 94103
Jean Sims	FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT 1855 Folsom Street, San Francisco 94103
Debra Lieberman	FAR WEST LABORATORY FOR EDUCATIONAL RESEARCH AND DEVELOPMENT 1855 Folsom Street, San Francisco 94103
Sally Stewart	CALIFORNIA SCHOOL BOARDS ASSOCIATION 916 - 23rd Street, Sacramento 95816
Nancy Baumann	CALIFORNIA SCHOOL BOARDS ASSOCIATION 916 - 23rd Street, Sacramento 95816
Hazel Mahone	CALIFORNIA SCHOOL BOARDS ASSOCIATION 916 - 23rd Street, Sacramento 95816
Joe Duardo	CALIFORNIA SCHOOL BOARDS ASSOCIATION South Whittier School District 13444 Safari Drive, Whittier 90620
Forrest Williams	CALIFORNIA SCHOOL BOARDS ASSOCIATION Oak Grove School District 6578 Santa Teresa Blvd. San Jose 95123
Marilyn Hammond and Bob House	ASSOCIATION FOR CALIFORNIA SCHOOL ADMINISTRATORS 1575 Old Bayshore Highway, Burlingame 94010
C. Hugh Friedman	STATE BOARD OF EDUCATION University of San Diego School of Law Alcala Park, San Diego 92110
Henry Weiss	INDUSTRY EDUCATION COUNCIL OF CALIFORNIA 1575 Old Bayshore Highway, Burlingame 94010
Jack Stoltz	STATE INSTRUCTIONAL TELEVISION ADVISORY COMMITTEE Santa Barbara County Schools 4400 Cathedral Oaks Road, Santa Barbara 93111
Bob Stahl	CALIFORNIA TEACHERS ASSOCIATION 1705 Murchison Drive, Burlingame 94010
John Muir	CALIFORNIA TEACHERS ASSOCIATION 1705 Murchison Drive, Burlingame 94010
Don Lundstrom	CURRICULUM DEVELOPMENT AND SUPPLEMENTAL MATERIALS COMMISSION, Chairperson Pajaro Valley Unified School District 440-A Arthur Road Watsonville 95076

Dale Heckman	CALIFORNIA POSTSECONDARY EDUCATION COMMISSION 1020 - 12th Street, Sacramento 95814
Robert Kane	COMMISSION FOR TEACHER PREPARATION & LICENSING 1020 "O" Street, Sacramento 95814
Colin Sprang	CALIFORNIA ASSOCIATION OF INDEPENDENT SCHOOLS 25 Academy Road Palos Verdes Peninsula 90274 **Mailing Address:** 3065 Jackson Street San Francisco 94115
Harriet Borson	CALIFORNIA STATE PARENT TEACHERS ASSOCIATION 930 Georgia Street, Los Angeles 90015
John Hunt	STATE STEERING COMMITTEE FOR CURRICULUM DEVELOPMENT AND PUBLICATIONS Los Angeles County Office of Education 9300 East Imperial Highway, Downey 90242
Barbara DeCaro	AMERICAN ELECTORNICS ASSOCIATION 26580 Hanover Street, Palo Atlo 94304
John Cambus	CALIFORNIA CURRICULUM CORRELATING COUNCIL Department of Mass Communication California State University - Hayward Hayward 94542
Mark Gorelczenko	KOCE - TV P.O. Box 2476 Huntington Beach 92647
William Paisley	STANFORD UNIVERSITY Communications Department - Cypress Hall Stanford 94305
Bobby Goodson	COMPUTER USING EDUCATORS P.O. Box 18547, San Jose 95158
Sandy Wagner	SANTA CLARA COUNTY SCHOOLS OFFICE 100 Skyport Drive San Jose 95110

APPENDIX B

INVITATIONAL FORUM FOR THE DEVELOPMENT OF COORDINATED STATEWIDE LEADERSHIP IN EDUCATIONAL TECHNOLOGY

Wednesday, July 14, 1982

AGENDA

9:30 A.M.	Registration and Coffee
10:00 A.M.	Call to Order, Opening Remarks: Mary Reed Welcome: Dr. Wilson Riles AB 2190: Mary Reed Governor's Initiative: Dr. Emanuel Scrofani
10:30 A.M.	Overview of day, expected outcomes: Matilda Butler
10:45 A.M.	Small Groups Identify the most important needs in California for the planning, development, and implementation of educational technology in the 1980s.
12:00 P.M.	Break for lunch
12:15 P.M.	Large Group Reports and discussion Consensus of priorities
1:30 P.M.	Small Groups Suggest strategies, resources, and next steps to meet the identified needs concerning educational technology in the State of California
2:30 P.M.	Large Group Small group reports
3:00 P.M.	Summary and What Next: Nancy Baumann
3:30 P.M.	Adjourn

HIGHLIGHTS OF REMARKS BY DR. WILSON RILES AND DR. EMANUEL SCROFANI

Wilson Riles, Superintendent of Public Instruction

Dr. Riles emphasized that California has the opportunity to become a model system for others who are facing the same issues in educational technology, and noted that California not only has the Governor's support but also legislation and budget authorization to enable decisive work to begin now. Speaking from the perspective of a practitioner in and observer of educational organizations, Dr. Riles cautioned the assembled group to avoid letting technology become the fad of a limited group and to recognize that the technological revolution has the potential to increase the division between "us" and "them"--the technologically conversant and the learners of all ages who are not successfully brought into the mainstream. Dr. Riles closed his talk by emphasizing his commitment to the group's success in its efforts to establish coordinated statewide leadership in educational technology.

Emanuel Scrofani, Manager, Office of Staff Development

Dr. Scrofani began with a list of "givens": there is a shortage of math and science teachers; kids will need computer technology skills for future employment; we know how to teach effectively and we know what makes for effective schools, but we also know that we need to retrain teachers--we need to teach methodology and how to use materials effectively in the classroom. Using these givens as a backdrop, Dr. Scrofani described the Governor's Initative: Investment in People Program. The Teacher Education Computer (TEC) Centers, funded at $4,000,000 under the Investment in People Program, will ensure a more equitable distribution of education functions by providing for methodology and computer education, by brokering with business and industry, and by coordinating and cooperating with educators in other curriculum areas. The Initiative provides for

and makes use of the existing staff development networks.

The School Staff Development component, provides $2,406,000 which increases funds available at the school level in grades 7-12 for staff development. "The closer the money is to the kids, the better the chance of improvement," said Dr. Scrofani.

The third component of the Initiative, TEC Retraining Scholarships provides $480,000 to augment the existing credentials of approximately 120 teachers who show a propensity for math and science to make them eligible to teach these subjects.

The Instructional Development and Exemplary Projects component provides $2,464,000 to fund projects that support the thrusts of the program. Exemplary project funds may be granted to projects such as summer teacher training; institutes in mathematics or science modeled on the California Writing Project; demonstration programs in schools; programs to encourage students to continue study of mathematics and science through all years of high school; or programs to improve curriculum in mathematics, science, or computer use in schools.

Dr. Scrofani noted that he and others in the Staff Development Office are available to answer questions and to help clarify intents.

AB 2190 EDUCATIONAL TECHNOLOGY COMMITTEE

Dr. Mary Reed, Manager of the Educational Technology Unit, completed the introductory portion of the meeting with an overview of AB 2190 and provided copies of the bill for those interested.* As summarized, AB 2190 has three directions: the area of programming acquisition and production; the acquisition and negotiation of hardware; and exemplary programs.

---

*Copies of AB 2190 may be obtained by writing to the Educational Technology Unit, California State Department of Education.

BEST COPY AVAILABLE

APPENDIX C

FIVE CRITICAL EDUCATIONAL TECHNOLOGY NEEDS

IDENTIFIED BY EACH SMALL GROUP

These four sets of needs were provided by the four small groups through a process of brainstorming, discussion, and voting. They were later used as the basis from which the six critical needs were identified.

Group A.

A. Equal access to technology for all learners

B. Continued grassroots involvement of classroom teachers

C. New view of curriculum development incorporating technology, and the coordination of activities

D. Support for teachers, such as release time for staff development and planning

E. Quality control of instructional planning

Group B.

A. Standards and definitions of what is basic computer literacy and how it is taught

B. Coordination/cooperation across disciplines for computer use

C. Funding for staff development both pre- and in-service

D. State and LEA plans for use for technology

E. Media literacy for parents and students

Group C.

A. Public awareness of technology literacy issues: teachers and students

B. Planning: budgets, facilities, and research

C. Applications: software, use

D. Policy issue: equity vs. quality

E. Role of private sector: business and industry

Group D.

A. Learner-centered technology to increase quality and effectiveness of classroom teaching

B. Industry-education interface

C. Equality/inequality of opportunity

D. Community awareness and coordination between workplace, school, and home

E. Continuing education and retraining for educators